

Drought Status for March 2005
National Weather Service, Albuquerque, NM

Discussion: The wet winter continued for much of New Mexico through February as a persistent storm track tapped into abundant moisture from the subtropical Pacific Ocean. As a whole, New Mexico experienced the wettest February of the past 111 years. Using the convention of December through February to represent the winter months, New Mexico also experienced the wettest winter of record. New precipitation records for February were established at a number of locations, including Glenwood, Redrock, Gila Hot Springs, Las Cruces, Cloudcroft, and Ruidoso. Meanwhile, Albuquerque, Santa Fe, Farmington, Tucumcari, Los Lunas, Red River, and Ruidoso are among locations having their wettest year of record as of the end of February.

Calendar-year precipitation through February averaged 270 percent of normal for New Mexico, ranging from 228 percent in climate division 6 (Central Highlands) to 383 percent in climate division 5 (Central Valley). Water year (since October 1, 2004) precipitation through February averaged 188 percent of normal for the state. Consequently, the drought situation continues to improve throughout the state. Presently, there is no **short-term** drought in the state.

Some affects of long-term drought remain. Over the east, surface and near-surface water is in good shape, although reservoir storage is still in the recovering stage. Worst **long-term** drought conditions remain over the northern mountains, especially in the region from northwest of Las Vegas to Santa Fe...Los Alamos and Jemez Springs. In that region, 4 ½ year precipitation deficits of 20 to 25 inches combined with six-month surpluses of about 4 inches still leaves 60 month deficits of around 16 to 21 inches, which represents 8 to 12 months of precipitation lost. The 2nd worst areas include the Capitan and northern Sacramento Mountains within Lincoln County, as well as a portion of western New Mexico through Grants, Gallup and Zuni, where 60 month deficits of 10 to 15 inches remain.

The following table shows the 2005 precipitation anomaly by climate division, water year (Oct 2004-Feb 2005) anomaly, short-term (<= 12 months) and long-term (>12 months) Standardized Precipitation Index (SPI). Since there is presently no short-term drought, percentiles are only included for the long-term situation. Percentile is a good measure to determine how rare the precipitation value is. In general, percentiles from 1 to 10 are associated with “emergency” drought conditions in New Mexico. Percentiles from 11 to 20 are consistent with drought “warning” designations, while values from 21-40 are usually indicative of drought “alerts” (21-30), and “advisories” (31-40).

Climate Division	Anomaly Jan-Feb 2005	Anomaly Oct 2004-Feb 2005	Lowest Short Term SPI (month) Anomaly		Lowest Long Term SPI (month) Anomaly/Percentile	
1 NWest	+2.0”	+1.6”	+0.2 (10)	+0.4”	-0.4 (48)	-2.4”/37 th
2 N Mtns	+2.2”	+3.4”	+0.5 (10)	+1.5”	-1.2 (48)	-8.2”/10 th
3 NE Plains	+1.4”	+4.1”	+1.1 (1)	+0.4”	0.0 (48)	-0.3”/49 th
4 SW Mtns	+3.0”	+4.7”	+0.8 (10)	+2.2”	+0.3 (48)	+1.5”/60 th
5 Cntrl Vly	+2.4”	+4.3”	+1.2 (10)	+3.4”	+0.2 (48)	+0.8”/57 st
6 Cntrl Highlnds	+1.5”	+3.1”	+0.5 (10)	+1.5”	-0.9 (48)	-7.7”/17 th
7 SE Plains	+1.4”	+5.0”	+1.6 (3)	+1.5”	+0.3 (48)	+2.1”/62 nd
8 Srn Desert	+3.4”	+5.4”	+1.8 (10)	+5.5”	0.0 (48)	-0.4”/48 th

The following table shows the water year (since October 1, 2004) and calendar year (2005) precipitation:

Calendar Year 2005 and Water Year 2005 (Oct thru Jan) Precipitation for New Mexico

National Weather Service Albuquerque, NM

<u>Location</u>	2005 (Jan - Feb)			Water Year 2005 (Oct 04 through Feb 05)			
	<u>Obs</u>	<u>Normal</u>	<u>%Normal</u>	<u>Obs</u>	<u>Normal</u>	<u>% Normal</u>	<u>SID</u>
<i>Northwest Plateau</i>							
AZTEC RUINS N/M	4.04	1.51	268%	5.97	4.12	145%	AZT
FENCE LAKE	4.33	1.87	232%	8.02	5.12	157%	FCK
FARMINGTON AG CTR	2.90	1.03	282%	4.79	3.25	147%	FAR
GALLUP FAA APRT	3.27	1.64	199%	5.06	4.42	114%	GUP
LINDRITH 2SE	5.91	1.93	306%	10.08	5.14	196%	LDR
NAVAJO DAM	5.46	2.00	273%	12.10	5.60	216%	BLN
<i>Northern Mountains</i>							
ALCALDE	2.74	0.73	375%	5.01	2.83	177%	ALC
CANJILON R/S	4.07	2.04	200%	6.64	5.21	127%	CJL
CERRO	2.85	1.12	254%	6.11	3.60	170%	CRR
CHAMA	8.60	3.62	238%	12.86	8.46	152%	CHM
CIMARRON 4SW	2.27	0.92	247%	6.05	3.08	196%	CPS
GHOST RANCH	2.53	1.19	213%	3.94	3.36	117%	AIQ
JEMEZ SPRINGS	3.91	1.89	207%	7.19	5.35	134%	JEM
JOHNSON RANCH	2.73	1.27	215%	6.34	3.67	173%	CUB
LAS VEGAS FAA APRT	1.43	0.73	196%	6.75	3.05	221%	LVS
LOS ALAMOS	4.74	1.52	312%	8.13	4.76	171%	LOA
RATON KRTN	2.41	0.77	313%	4.80	2.69	178%	RTO
RED RIVER	5.25	2.29	229%	8.72	6.12	142%	RED
SANTA FE 2	3.72	1.23	302%	7.54	4.17	181%	STF
WOLF CANYON	8.11	3.44	236%	12.37	8.41	147%	CUA
<i>Northeastern Plains</i>							
CLAYTON APRT	2.16	0.68	318%	4.93	2.64	187%	CAO
CLOVIS	2.05	0.88	233%	10.03	3.78	265%	CLV
CONCHAS DAM	2.93	0.76	386%	5.85	2.80	209%	CNC
MOSQUERO 1NE	2.44	0.77	317%	5.38	2.92	184%	MSQ
PORTALES	1.43	0.80	179%	4.84	3.34	145%	POR
TUCUMCARI 4NE	2.45	0.83	295%	7.89	3.31	238%	TUC
<i>Southwestern Mountains</i>							
FORT BAYARD	6.81	1.74	391%	12.70	4.83	263%	FTB
GILA HOT SPRINGS	5.76	1.96	294%	10.88	5.93	183%	GHS
GRANTS APRT	2.10	0.95	221%	4.54	3.31	137%	GNT
QUEMADO ESTATES	4.22	1.55	272%	6.76	4.20	161%	QME
RESERVE R/S	5.50	2.05	268%	10.93	6.17	177%	RES
<i>Central Valley</i>							
ABQ WSFO APRT	3.16	0.75	421%	5.96	2.50	238%	ABQ
BOSQUE DEL APACHE	2.92	0.75	389%	6.49	2.65	245%	SAA
LOS LUNAS 3SSW	2.97	0.76	391%	5.45	2.83	193%	LLU
SOCORRO	2.72	0.81	336%	7.76	2.82	275%	SCR
<i>Central Highlands</i>							
CAPITAN	2.71	1.34	202%	6.63	3.57	186%	CAP
CLOUDCROFT	7.11	3.05	233%	15.72	7.30	215%	CLD
ESTANCIA 4N	1.97	1.06	186%	5.72	3.48	164%	EST

MOUNTAINAIR R/S	4.12	1.48	278%	8.13	4.23	192%	MTN
RUIDOSO 2NNE	5.22	2.35	222%	11.50	6.37	181%	RUP
<i>Southeastern Plains</i>							
ARTESIA 6S	2.26	0.81	279%	8.17	2.91	281%	ART
CARLSBAD	2.11	0.79	267%	8.28	3.14	264%	CWP
FORT SUMNER	3.22	0.83	388%	8.40	3.38	249%	FSM
ROSWELL CLIMAT	1.86	0.89	209%	6.18	3.18	194%	ROW
SANTA ROSA	2.34	0.80	293%	8.47	3.08	275%	SNR
TATUM	2.12	0.87	244%	10.64	3.41	312%	TAT
<i>Southern Desert</i>							
ANIMAS	4.16	1.18	353%	7.47	3.64	205%	ANM
DEMING	2.92	0.96	304%	6.02	2.88	209%	DEM
FAYWOOD	4.30	1.28	336%	7.26	4.03	180%	FAY
STATE U LAS CRUCES	3.45	0.85	406%	6.47	2.94	220%	STC
TRUTH OR CONSEQ	2.31	0.95	243%	5.30	4.27	124%	TRC
TULAROSA	4.16	0.99	420%	8.18	3.06	267%	TLR

	2005 (Jan - Feb)	Water Year 2005 (Oct 04 through Feb 05)
<u>Climate Division</u>	<u>% NrmI</u>	<u>% NrmI</u>
Northwest Plateau	260%	166%
Northern Mountains	243%	158%
Northeastern Plains	285%	207%
Southwestern Mountains	296%	187%
Central Valley	383%	238%
Central Highlands	228%	191%
Southeastern Plains	279%	263%
Southern Desert	343%	195%
All Divisions	270%	188%

State Actions: A drought declaration has been in effect since May 2003. The present declaration was signed by Governor Richardson in May 2004 and will remain in effect until May 2005.

Fire Danger Impacts: Fire danger is generally low, especially in the mountains. However, abundant new grasses (especially over eastern New Mexico) from the recent wet weather will provide new fuel for fire in the coming months once we have a period of drier weather.

Hydrologic Impacts: New Mexico reservoir storage has increased substantially over the past year. However, storage remains below normal over a good portion of New Mexico. Storage in the Rio Grande Basin averages about 30 percent of normal. Storage on the Canadian Basin is also well below normal. Conditions are expected to continue improving over the next few months with above normal runoff expected on the major systems from April through June. The only area where normal to below normal runoff is forecast is in the Bluewater Lake Basin of western New Mexico.

Long-range outlook: The weak El Niño that has been in progress since the latter half of 2004 is waning. However, there is a time lag between the demise of an El Niño and the effects around the globe. Most of New Mexico will likely continue to receive above-normal precipitation through March. As Spring progresses, the effects of the El Niño will diminish.” Drier conditions will likely return later in the spring before the onset of the summer thunderstorm season.